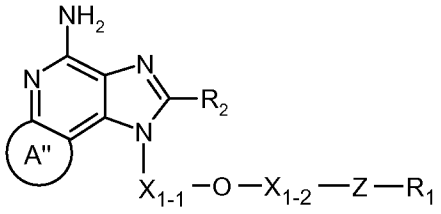
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (canceled)

2. (original) A compound of the Formula Ia:



Ia

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of –S-, -S(O)-, and $–S(O)_2$-;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl-C_{1-10} alkylenyl,

aryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl-C_{1-10} alkylenyl,

heteroaryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl-C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl-C_{1-10} alkylenyl, aryloxy-C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl, heteroaryl-C_{1-10} alkylenyl, heteroaryloxy-C_{1-10} alkylenyl, C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C_{1-10} alkylenyl substituted by one or more substituents independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy-C_{1-10} alkyl, halo-C_{1-10} alkyl, halo-C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino, C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl, C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

A" is a fused aryl ring or heteroaryl ring containing one heteroatom selected from the group consisting of N and S, wherein the aryl or heteroaryl ring is unsubstituted or substituted by one or more R groups, or a fused 5 to 7 membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or substituted by one or more R_A groups;

each R is independently selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

each R_A is independently selected from the group consisting of halogen, hydroxy, alkyl, alkenyl, haloalkyl, alkoxy, alkylthio, and $-N(R_9)_2$;

R_2 is selected from the group consisting of

$-R_4$,

$-X-R_4$,

$-X-Y-R_4$, and

$-X-R_5$;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

-O-,

-$S(O)_{0-2}$-,

-$S(O)_2$-$N(R_8)$-,

-$C(R_6)$-,

-$C(R_6)$-O-,

-O-$C(R_6)$-,

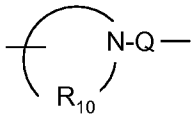
-O-C(O)-O-,

-$N(R_8)$-Q-,

-$C(R_6)$-$N(R_8)$-,

-O-$C(R_6)$-$N(R_8)$-,

-$C(R_6)$-$N(OR_9)$-,



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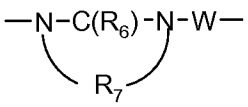

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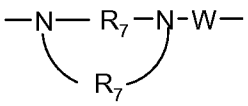

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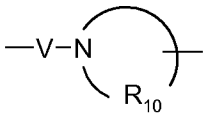

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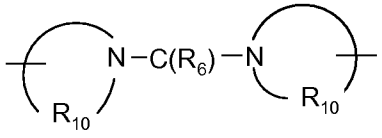
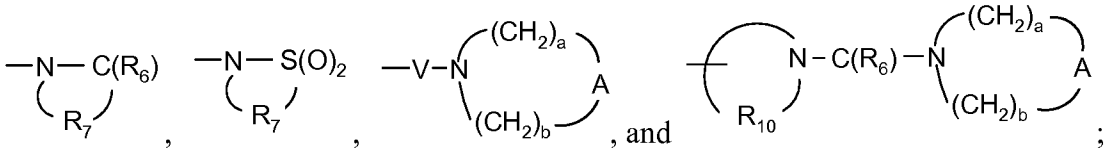


;

R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano,

aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



;

R_6 is selected from the group consisting of =O and =S;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, $-S(O)_{0-2}-$, $-CH_2-$, and $-N(R_4)-$;

Q is selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

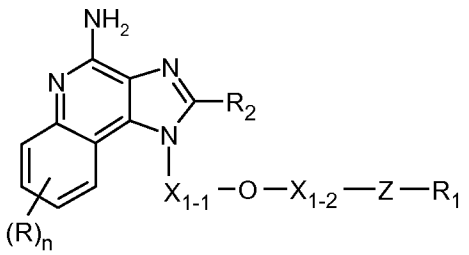
W is selected from the group consisting of a bond, -C(O)-, and $–S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

or a pharmaceutically acceptable salt thereof.

3. (canceled)

4. (original) A compound of the Formula IIa:



IIa

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of –S-, -S(O)-, and $–S(O)_2$-;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl-C_{1-10} alkylenyl,

aryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl-C_{1-10} alkylenyl,

heteroaryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl-C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl-C_{1-10} alkylenyl, aryloxy-C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl, heteroaryl-C_{1-10} alkylenyl, heteroaryloxy-C_{1-10} alkylenyl, C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C_{1-10} alkylenyl substituted by one or more substituents independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy-C_{1-10} alkyl, halo-C_{1-10} alkyl, halo-C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino, C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl, C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

n is 0 to 4;

R_2 is selected from the group consisting of

$-R_4$,

$-X-R_4$,

$-X-Y-R_4$, and

$-X-R_5$;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$-O-$,

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

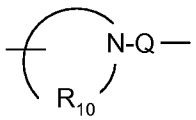
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

$-C(R_6)-N(OR_9)-$,



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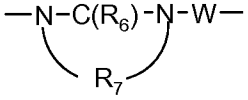

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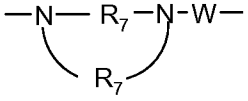

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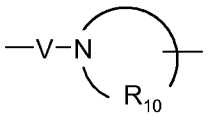

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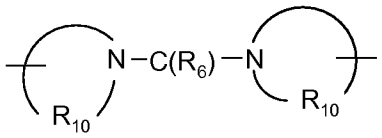
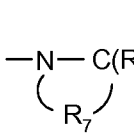


;

R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



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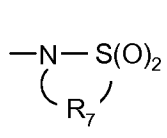

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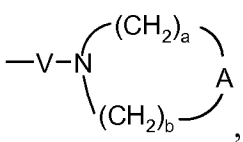

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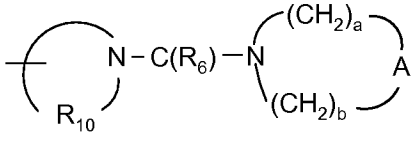


;

R_6 is selected from the group consisting of =O and =S;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, $-S(O)_{0-2}-$, $-CH_2-$, and $-N(R_4)-$;

Q is selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$,

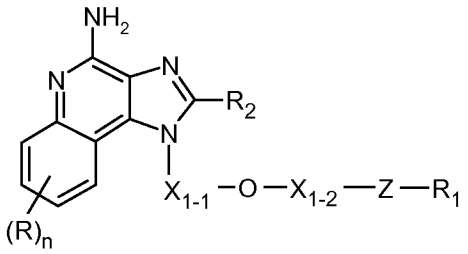
-$N(R_8)$-$C(R_6)$-, and -$S(O)_2$-;

W is selected from the group consisting of a bond, -C(O)-, and –$S(O)_2$-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

or a pharmaceutically acceptable salt thereof.

5. (original) A compound of the Formula IIa:



IIa

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of –S-, -S(O)-, and –$S(O)_2$-;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl-C_{1-10} alkylenyl,

aryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl-C_{1-10} alkylenyl,

heteroaryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl-C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl-C_{1-10} alkylenyl, aryloxy-C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl, heteroaryl-C_{1-10} alkylenyl, heteroaryloxy-C_{1-10} alkylenyl, C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C_{1-10} alkylenyl substituted by one or more substituents independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy-C_{1-10} alkyl, halo-C_{1-10} alkyl, halo-C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino, C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl, C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

n is 0 to 4;

R_2 is selected from the group consisting of

$-R_4$,

$-X-R_4$,

$-X-Y-R_4$, and

$-X-R_5$;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

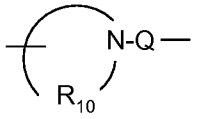
$-O-C(O)-O-$,

-$N(R_8)$-Q-,

-$C(R_6)$-$N(R_8)$-,

-O-$C(R_6)$-$N(R_8)$-,

-$C(R_6)$-$N(OR_9)$-,



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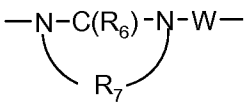

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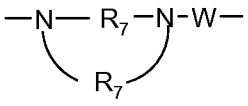

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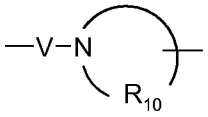

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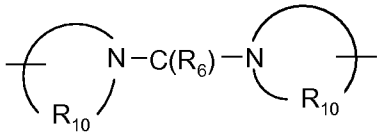
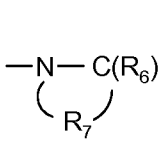


;

R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



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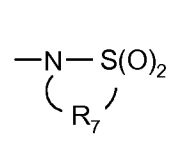

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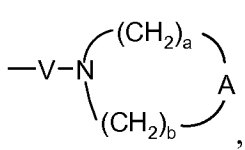

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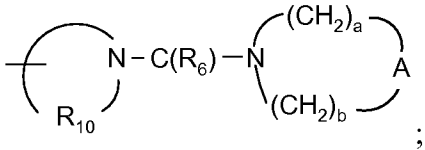


;

R_6 is selected from the group consisting of =O and =S;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, $-S(O)_{0-2}-$, $-CH_2-$, and $-N(R_4)-$;

Q is selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

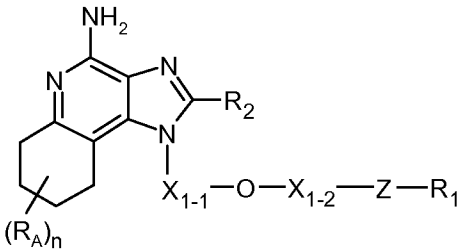
W is selected from the group consisting of a bond, -C(O)-, and $-S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

or a pharmaceutically acceptable salt thereof.

6. (canceled)

7. (original) A compound of the formula IIIa:



IIIa

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of –S-, -S(O)-, and $-S(O)_2-$;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl-C_{1-10} alkylenyl,

aryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl-C_{1-10} alkylenyl,

heteroaryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl-C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl-C_{1-10} alkylenyl, aryloxy-C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl, heteroaryl-C_{1-10} alkylenyl, heteroaryloxy-C_{1-10} alkylenyl, C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C_{1-10} alkylenyl substituted by one or more substituents independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy-C_{1-10} alkyl, halo-C_{1-10} alkyl, halo-C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino, C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl, C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

R_A is selected from the group consisting of:

halogen,

hydroxy,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

$-N(R_9)_2$;

n is 0 to 4;

R_2 is selected from the group consisting of

$-R_4$,

$-X-R_4$,

$-X-Y-R_4$, and

$-X-R_5$;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

-O-,

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

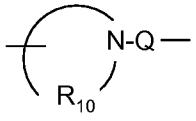
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

$-C(R_6)-N(OR_9)-$,



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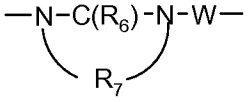

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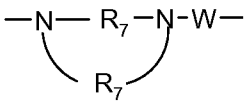
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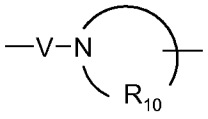
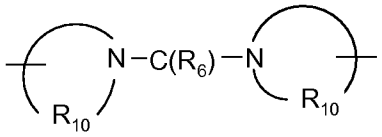
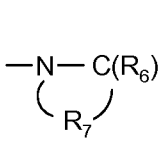

, and


;

R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of: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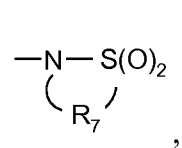
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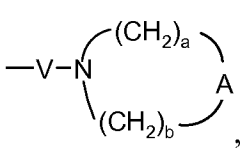
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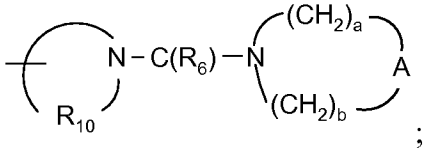

;

R_6 is selected from the group consisting of =O and =S;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, -$S(O)_{0-2}$-, -CH_2-, and -$N(R_4)$-;

Q is selected from the group consisting of a bond, -$C(R_6)$-, -$C(R_6)$-$C(R_6)$-,

-$S(O)_2$-, -$C(R_6)$-$N(R_8)$-W-, -$S(O)_2$-$N(R_8)$-, -$C(R_6)$-O-, and -$C(R_6)$-$N(OR_9)$-;

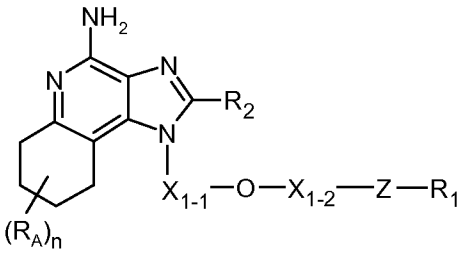
V is selected from the group consisting of -$C(R_6)$-, -O-$C(R_6)$-, -$N(R_8)$-$C(R_6)$-, and -$S(O)_2$-;

W is selected from the group consisting of a bond, -C(O)-, and –$S(O)_2$-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

or a pharmaceutically acceptable salt thereof.

8. (original) A compound of the Formula IIIa:



IIIa

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of –S-, -S(O)-, and –$S(O)_2$-;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl-C_{1-10} alkylenyl,

aryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl-C_{1-10} alkylenyl,

heteroaryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl-C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl-C_{1-10} alkylenyl, aryloxy-C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl, heteroaryl-C_{1-10} alkylenyl, heteroaryloxy-C_{1-10} alkylenyl, C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C_{1-10} alkylenyl substituted by one or more substituents independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy-C_{1-10} alkyl, halo-C_{1-10} alkyl, halo-C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino, C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl, C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

R_A is selected from the group consisting of:

halogen,

hydroxy,

alkyl,

alkenyl,

haloalkyl,

alkoxy,

alkylthio, and

$-N(R_9)_2$;

n is 0 to 4;

R_2 is selected from the group consisting of

$-R_4$,

$-X-R_4$,

$-X-Y-R_4$, and

$-X-R_5$;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can

be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

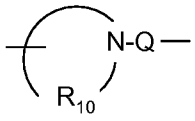
$-O-C(O)-O-$,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

$-C(R_6)-N(OR_9)-$,



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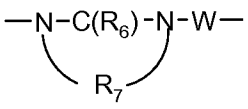

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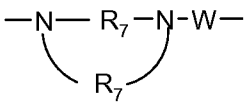

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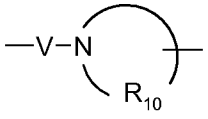

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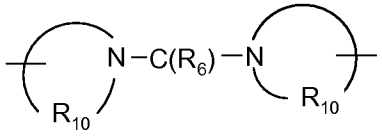
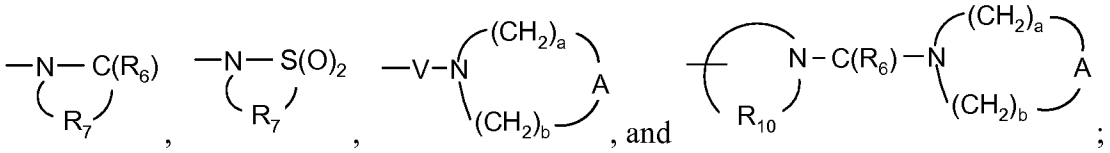


;

R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or

substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



;

R_6 is selected from the group consisting of =O and =S;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, $-S(O)_{0-2}$-, $-CH_2$-, and $-N(R_4)$-;

Q is selected from the group consisting of a bond, $-C(R_6)$-, $-C(R_6)-C(R_6)$-, $-S(O)_2$-, $-C(R_6)-N(R_8)-W$-, $-S(O)_2-N(R_8)$-, $-C(R_6)-O$-, and $-C(R_6)-N(OR_9)$-;

V is selected from the group consisting of $-C(R_6)$-, $-O-C(R_6)$-, $-N(R_8)-C(R_6)$-, and $-S(O)_2$-;

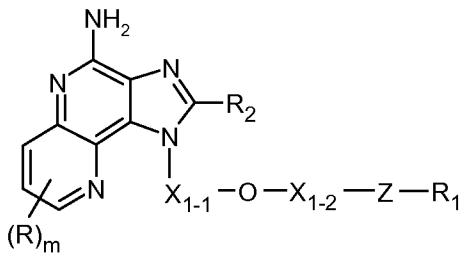
W is selected from the group consisting of a bond, -C(O)-, and $–S(O)_2$-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

or a pharmaceutically acceptable salt thereof.

9. (canceled)

10. (original) A compound of the Formula IVa:



IVa

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of –S-, -S(O)-, and $–S(O)_2$-;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl-C_{1-10} alkylenyl,

aryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl-C_{1-10} alkylenyl,

heteroaryloxy-C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl-C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl-C_{1-10} alkylenyl, aryloxy-C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl, heteroaryl-C_{1-10} alkylenyl, heteroaryloxy-C_{1-10} alkylenyl, C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C_{1-10} alkylenyl substituted by one or more substituents independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy-C_{1-10} alkyl,

halo-C_{1-10} alkyl, halo-C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,

C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl,

C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

m is 0 to 3;

R_2 is selected from the group consisting of

$-R_4$,

$-X-R_4$,

$-X-Y-R_4$, and

$-X-R_5$;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

-O-,

$-S(O)_{0-2}-$,

$-S(O)_2-N(R_8)-$,

$-C(R_6)-$,

$-C(R_6)-O-$,

$-O-C(R_6)-$,

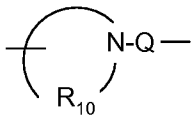
-O-C(O)-O-,

$-N(R_8)-Q-$,

$-C(R_6)-N(R_8)-$,

$-O-C(R_6)-N(R_8)-$,

$-C(R_6)-N(OR_9)-$,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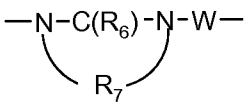
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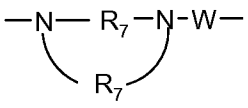
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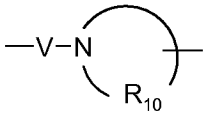
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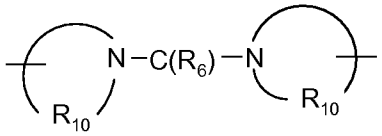
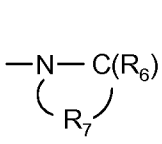

;

R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of: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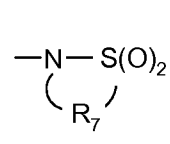
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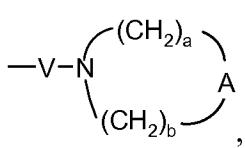
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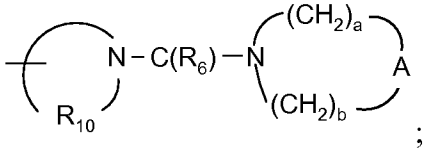
;

R_6 is selected from the group consisting of =O and =S;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, -$S(O)_{0-2}$-, -CH_2-, and -$N(R_4)$-;

Q is selected from the group consisting of a bond, -$C(R_6)$-, -$C(R_6)$-$C(R_6)$-, -$S(O)_2$-, -$C(R_6)$-$N(R_8)$-W-, -$S(O)_2$-$N(R_8)$-, -$C(R_6)$-O-, and -$C(R_6)$-$N(OR_9)$-;

V is selected from the group consisting of -$C(R_6)$-, -O-$C(R_6)$-, -$N(R_8)$-$C(R_6)$-, and -$S(O)_2$-;

W is selected from the group consisting of a bond, -C(O)-, and –$S(O)_2$-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;

or a pharmaceutically acceptable salt thereof.

11. (currently amended) The compound or salt of ~~claim 9 or~~ claim 10 wherein m is 0.

12. (currently amended) The compound or salt ~~of any one~~ of claim~~s~~ 4~~3 through 8~~ wherein n is 0.

13-14 (canceled)

15. (currently amended) The compound or salt ~~of any one~~ of claim~~s~~ 2~~, 4, 5, 7, 8, 10, 11 as dependent on claim 10, or 12 as dependent on any one of claims 4, 5, 7, or 8~~ wherein R_2 is hydrogen, alkyl, hydroxyalkylenyl, or alkoxyalkylenyl.

16. (original) The compound or salt of claim 15 wherein R_2 is hydrogen, methyl, ethyl, propyl, butyl, 2-hydroxyethyl, hydroxymethyl, 2-methoxyethyl, or ethoxymethyl.

17. (canceled)

18. (currently amended) The compound or salt of ~~any one of~~ claim~~s~~ 2~~1 through 17~~ wherein Z is –$S(O)_2$-.

19. (currently amended) The compound or salt ~~of any one~~ of claim~~s~~ 2~~1 through 17~~ wherein Z is -S(O)-.

20. (currently amended) The compound or salt ~~of any one~~ of claim~~s~~ 2~~1 through 17~~ wherein Z is -S-.

21. (currently amended) The compound or salt ~~of any one~~ of claim~~s~~ 2~~1 through 20~~ wherein R_1 is linear or branched C_{1-4} alkyl, aryl, or 5 to 10 membered heteroaryl containing one or two heteroatoms, wherein the alkyl, aryl, or heteroaryl group may be unsubstituted or substituted with one or more substituents.

22. (currently amended) The compound or salt of claim 21 wherein R_1 is methyl, ethyl, 1-propyl, 2-propyl, 2-methylpropyl, 2-hydroxy-2-methylpropyl, phenyl, ~~4~~-chlorophenyl, or 4-fluorophenyl.

23. (currently amended) The compound or salt ~~of any one~~ of claim~~s~~ 2~~1 through 22~~ wherein X_{1-1} and X_{1-2} are independently selected from C_{2-7} alkylene groups.

24. (original) The compound or salt of claim 23 wherein X_{1-1} is $-(CH_2)_{2-4}-$, $-CH_2-C(CH_3)_2-$, or $-CH_2-cyclic(CH_2)_{3-6}-$.

25. (currently amended) The compound or salt of ~~claim 23or~~ claim 24 wherein X_{1-2} is $-(CH_2)_2-$ or $-(CH_2)_3-$.

26. (currently amended) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt ~~of any one~~ of claim~~s~~ 2~~1 through 25~~ in combination with a pharmaceutically acceptable carrier.

27. (currently amended) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt ~~of any one~~ of claim~~s~~ 2~~1 through 25~~ to the animal.

28. (currently amended) A method of treating a viral disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt ~~of any one~~ of claim~~s~~ 2~~1 through 25~~ to the animal.

29. (currently amended) A method of treating a neoplastic disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt ~~of any one~~ of claim~~s~~ 2~~1 through 25~~ to the animal.

30-40 (canceled)

41. (new) The compound or salt of claim 4 wherein R_2 is hydrogen, alkyl, hydroxyalkylenyl, or alkoxyalkylenyl.

42. (new) The compound or salt of claim 41 wherein R_2 is hydrogen, methyl, ethyl, propyl, butyl, 2-hydroxyethyl, hydroxymethyl, 2-methoxyethyl, or ethoxymethyl.

43. (new) The compound or salt of claim 4 wherein Z is $-S(O)_2-$.

44. (new) The compound or salt of claim 4 wherein R_1 is linear or branched C_{1-4} alkyl, aryl, or 5 to 10 membered heteroaryl containing one or two heteroatoms, wherein the alkyl, aryl, or heteroaryl group may be unsubstituted or substituted with one or more substituents.

45. (new) The compound or salt of claim 44 wherein R_1 is methyl, ethyl, 1-propyl, 2-propyl, 2-methylpropyl, 2-hydroxy-2-methylpropyl, phenyl, 4-chlorophenyl, or 4-fluorophenyl.

46. (new) The compound or salt of claim 4 wherein X_{1-1} and X_{1-2} are independently selected from C_{2-7} alkylene groups.

47. (new) The compound or salt of claim 46 wherein X_{1-1} is $-(CH_2)_{2-4}-$, $-CH_2-C(CH_3)_2-$, or $-CH_2-cyclic(CH_2)_{3-6}-$.

48. (new) The compound or salt of claim 47 wherein X_{1-2} is $-(CH_2)_2-$ or $-(CH_2)_3-$.

49. (new) The compound or salt of claim 7 wherein n is 0.

50. (new) The compound or salt of claim 7 wherein R_2 is hydrogen, alkyl, hydroxyalkylenyl, or alkoxyalkylenyl.

51. (new) The compound or salt of claim 50 wherein R_2 is hydrogen, methyl, ethyl, propyl, butyl, 2-hydroxyethyl, hydroxymethyl, 2-methoxyethyl, or ethoxymethyl.

52. (new) The compound or salt of claim 7 wherein Z is $-S(O)_2-$.

53. (new) The compound or salt of claim 7 wherein R_1 is linear or branched C_{1-4} alkyl, aryl, or 5 to 10 membered heteroaryl containing one or two heteroatoms, wherein the alkyl, aryl, or heteroaryl group may be unsubstituted or substituted with one or more substituents.

54. (new) The compound or salt of claim 53 wherein R_1 is methyl, ethyl, 1-propyl, 2-propyl, 2-methylpropyl, 2-hydroxy-2-methylpropyl, phenyl, 4-chlorophenyl, or 4-fluorophenyl.

55. (new) The compound or salt of claim 7 wherein X_{1-1} and X_{1-2} are independently selected from C_{2-7} alkylene groups.

56. (new) The compound or salt of claim 55 wherein X_{1-1} is $-(CH_2)_{2-4}-$, $-CH_2-C(CH_3)_2-$, or $-CH_2-cyclic(CH_2)_{3-6}-$.

57. (new) The compound or salt of claim 56 wherein X_{1-2} is $-(CH_2)_2-$ or $-(CH_2)_3-$.

58. (new) The compound or salt of claim 10 wherein R_2 is hydrogen, alkyl, hydroxyalkylenyl, or alkoxyalkylenyl.

59. (new) The compound or salt of claim 58 wherein R_2 is hydrogen, methyl, ethyl, propyl, butyl, 2-hydroxyethyl, hydroxymethyl, 2-methoxyethyl, or ethoxymethyl.

60. (new) The compound or salt of claim 10 wherein Z is $-S(O)_2-$.

61. (new) The compound or salt of claim 10 wherein R_1 is linear or branched C_{1-4} alkyl, aryl, or 5 to 10 membered heteroaryl containing one or two heteroatoms, wherein the alkyl, aryl, or heteroaryl group may be unsubstituted or substituted with one or more substituents.

62. (new) The compound or salt of claim 61 wherein R_1 is methyl, ethyl, 1-propyl, 2-propyl, 2-methylpropyl, 2-hydroxy-2-methylpropyl, phenyl, 4-chlorophenyl, or 4-fluorophenyl.

63. (new) The compound or salt of claim 10 wherein X_{1-1} and X_{1-2} are independently selected from C_{2-7} alkylene groups.

64. (new) The compound or salt of claim 63 wherein X_{1-1} is $-(CH_2)_{2-4}-$, $-CH_2-C(CH_3)_2-$, or $-CH_2-cyclic(CH_2)_{3-6}-$.

65. (new) The compound or salt of claim 64 wherein X_{1-2} is $-(CH_2)_2-$ or $-(CH_2)_3-$.

66. (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 4 in combination with a pharmaceutically acceptable carrier.

67. (new) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 4 to the animal.

68. (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 7 in combination with a pharmaceutically acceptable carrier.

69. (new) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 7 to the animal.

70. (new) A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of claim 10 in combination with a pharmaceutically acceptable carrier.

71. (new) A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of claim 10 to the animal.